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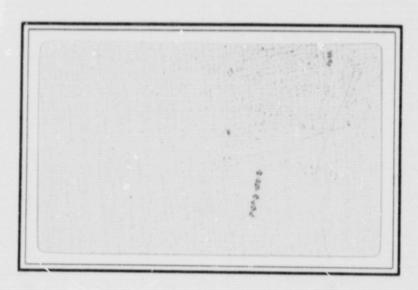
Produced by the NASA Center for Aerospace Information (CASI)

(NASA-CR-171026) PDSS/IMC QUALIFICATION TEST SOFTWARE ACCEPTANCE PROCEDURES (Intermetrics, Inc.) 43 p HC A03/MF A01

N84-25335

CSCL 09B

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# INTERMETRICS

IR-AL-026 PDSS/IMC

QUALIFICATION TEST SOFTWARE

ACCEPTANCE PROCEDURES

APRIL 26, 1984

National Aeronautics and Space Administration George C. Marshall Space Flight Center Prepared For:

Huntsville, Alabama 35812

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#### PREFACE

This document contains the Software Acceptance Procedures for the Payload Development Support System (PDSS)/Image Motion Compensator (IMC) Qualification Test Software.

This document was prepared for the Information and Electronic Systems Laboratory of the Marshall Space Flight Center under NASA contract NAS8-33825.

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R. Bou

Director

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#### QT SOFTWARE ACCEPTANCE PROCEDURES

The Procedures contained in this document are based on the "PDSS/IMC Qualification Test Software Acceptance Plan", IR-AL-019.

The commands for these procedures are described in the "PDSS/IMC Qualification Test User's Manual", IR-AL-020.

In the Process column, operator keyboard entries are enclosed in quotation marks (i.e., "keyboard entries").

Procedures 0-X are "subprocedures" that are referenced by the main procedures.

TEST PROCEDURE ID 0-1
-----------------------

DESCRIPTION: POWER ON

STEP	PROCESS	TEST CRITERIA	NOTES
1	POWER-UP PDSS & IMCE		
	PER USER'S MANUAL		
2	SELECT OPTION -"4"		
3	"/GML-RES 3"		120 MILLIVOLT   RESOLUTION
4	"MLOAD QT.MON"		LOAD SEID GML
5	"XSEND"		
6	"MON"	VERIFY DATA BEING UPDATED ON VDU	
7	"INIT"		START APPLICATION
8	"=STAR"		
9	"=STAR"		
10	"=RALG"		FETCH IMCE AI'S
11	"=CTRL/V"		ACTIVATE DATA VERIFICATION
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	<b>:</b>		

TEST	PROCEDURE	ID_	0-2	
DECC	A CTT CTC	LOG	CTAD'C	

STEP	PROCESS	TEST CRITERIA	NOTES
1	"=DISP 1"		
2	" = L 0 G "	1. VERIFY <log> IS SELECTED</log>	
		2. NOTE LOG BLOCK #	
		3. NOTE GMT	
		4. NOTE CYCLE	
	•		

TEST PROCEDURE ID 0-3

9 DESCRIPTION: LOG STOP

STEP	PROCESS	TEST CRITERIA	NOTES
1	"=DISP 1"		
2	"=L0G"	1. VERIFY <nlog> IS SELECTED</nlog>	
		2. NOTE LOG BLOCK #	
		3. NOTE GMT	
		4. NOTE CYCLE	
	·		
			,
	:		

TEST PRUCEDONE TEST SETUP

STEP	PROCESS	TEST CRITERIA	NOTES
1	IF SYSTEM NOT POWERED UP THEN: PERFORM 0-1		
2	"=DISP 1"		
3	IF LOG = <nlog> THEN "=LOG"</nlog>	VERIFY <log></log>	START LOG
4	IF SYSTEM = <nver></nver>		
	THEN "=CTRL/V"	VERIFY <ver></ver>	START VERIFY
5		VERIFY HRM OUTPUT ACTIVE	
	•		
	·• <u> </u>		
	<b>.</b>		

TEST PROCEDURE ID 0-5

DESCRIPTION: TEST CLOSE OUT

STEP	PROCESS	TEST CRITERIA	NOTES
1	"=COMM EOT"		EOT
2	"=DISP 1"		
3	"=L0G"		STOP LOG
4	DUMP NOW ? YES: PROCEED TO STEP 5 NO: PROCEED TO NEXT TEST		DUMP DATA NOW
5	"=STOP"	,	STOP & CLOSE LOG
6	"CTRL-C" "CTRL-C" "CTRL-F, CTRL-C, CTRL-C" "UNL-F"		REMOVE FOREGROUND
7	"R DUMP" "LP: = IMC.LOG"		DUMP LOG

TEST	PROCEDURE	ID	0-6
DESCI	RIPTION:	0.1	ERROR

STEP	PROCESS	TEST CRITERIA	NOTES
i	"=LOG"	VERIFY <nlog> ACTIVE</nlog>	STOP LOG
2	"=PMEM"		SAVE DISPLAYS
3	PERFORM TEST CLOSEOUT 0-5		
			1
	•		
	•		

TEST PROCEDURE ID 1-1, 1-2
DESCRIPTION: XIIT - NOMINAL

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST SET UP 0-4		LOG BLOCK
2	"=COMM XIIT - NOMINAL"		
3	" = X I I T "	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	XIIT RUN #1
4	RECORD DEP STATUS WORD	AND AND AND DOD AND AND AND AND UND DAY	
			LOG BLOCK
5	"=COMM XIIT - ERROR"		
5	PATCH IMCE DEP TO FORCE ERROR		
7	" = X I I T "	1. VERIFY COMMAND & RESPONSE MESSAGES ON DISPLAY 5 2. RECORD DEP STATUS WORD	
8	REMOVE DEP PATCH		
9	PERFORM TEST CLOSEOUT 0-5		
	•		
	:		

TEST	PROCEDURE	2-1,	2-2	
DESC	RIPTION:	XIMT		

PROCESS	TEST CRITERIA	NOTES
PERFORM TEST SET UP 0-4		Consider the control of the control
"=COMM XIMT - NOMINAL"		
" = X I MT "	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	XIMT RUN #1
RECORD DEP STATUS WORD	***	
"=COMM XIMT - ERROR"		
PATCH IMCE DEP TO FORCE XIMT ERROR		
"=XIMT"	1. VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5 2. VERIFY DEP STATUS WORD TEST FAILURE	
REMOVE DEP PATCH		
PERFORM TEST CLOSEOUT 0-5		
•		
•.		
	PERFORM TEST SET UP 0-4  "=COMM XIMT - NOMINAL"  "=XIMT"  RECORD DEP STATUS WORD  "=COMM XIMT - ERROR"  PATCH IMCE DEP TO FORCE XIMT ERROR  "=XIMT"  REMOVE DEP PATCH  PERFORM TEST CLOSEOUT 0-5	PERFORM TEST SET UP 0-4  "=COMM XIMT - NOMINAL"  "=XIMT"  RECORD DEP STATUS WORD  "=COMM XIMT - ERROR"  PATCH IMCE DEP TO FORCE XIMT ERROR  "=XIMT"  1. VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5 2. VERIFY DEP STATUS WORD TEST FAILURE  REMOVE DEP PATCH PERFORM TEST CLOSEOUT 0-5

TEST PROCEDURE ID 3-1, 3-2, 3-3

DESCRIPTION: RDRI

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST SET UP 6-4		Adaptive accessional apparent natural data or programment of plant apparent natural data.
2	"=COMM RDRI #1"		
3	"=RDRI"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	RDRI RUN #1
4	"=COMM RDRI #2"		
5	"=RDRI 20, 4*1111, 4*2222, 4*3333, 4*5555, 4*6666, 4*7777, 4*8888, 4*9999"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	RDRI RUN #2
6	"=COMM RDRI -SEQ"		
7	"=CTRL/D/S/M"		SEQ DEF VARY DATA REPEAT
8	"=RDRI"		SCHEDULE RORI
9	"=CTRL/S"		START SEQUENCE
10	RUN FOR 3 MINUTES	1. VERIFY RDRI BEING PERFORMED 2. VERIFY & RECORD # FAILURES	RDRI SEQ
11	"=CTRL/M"		STOP SEQ
12	PERFORM TEST CLOSEOUT 0-5		
	·. •;		

TEST PROCEDURE 1D 4-2. 4-2. 4-2. 4-4

DESCRIPTION: RDIS

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST SETUP 0-4		
2	"=COMM RDIS #1"		
3	"=RDIS"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	RDIS RUN #1
4	"=COMM RDIS #2"		
5	"=CTRL/D"		VARY DATA
6	"=RDIS"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	RDIS RUN #2
7	"=CTRL/S/M"		SEQ DEF REPEAT
8	"=COMM RDIS - SEQ"		
9	"=RDIS"	VERIFY TEST SCHEDULED ON DISP 1	
10	"=CRTL/S"		START SEQ
11	WAIT 3 MINUTES		RDIS SEQ
12	"=CTRL/M"		STOP SEQ
13	PERFORM TEST CLOSEOUT 0-5		
	•.		

TEST PROCEDURE ID 5-1, 5-2, 5-3, 5-4

DESCRIPTION: RALG

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST SETUP 0-4		Company of the Compan
2	"=COMM RALG #1"		
3	"=RALG"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	RALG RUN #1
4	TURN 3 THERMISTER SWITCHES TO OPPOSITE POSITIONS		
5	"=COMM RALG #2"		
6	"=RALG 32*0100"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	RALG RUN #2
7	"=COMM RALG SEQ"		
8	"=CTRL/D/M/S"		SEQ DEF VARY DATA REPEAT
9	"=RALG"	VERIFY RALG SCHEDULED	
10	"=CTRL/S"		START SEQ
11	WAIT 3 MINUTES	VERIFY RALG RUNNING	RALG SEQ
12	"=CTRL/M"		STOP SEQ
13	PERFORM TEST CLOSEOUT 0-5		
	•		
	·		

TEST PROCEDURE ID 6-1, ..., 6-7

DESCRIPTION: RGYR

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST SETUP 0-4		
2	"=COMM RGYR #1"		
3	"=RGYR/"	1. VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5 2. VERIFY NO PULSES READ	READ WITH NO PULSES
4	"=SSPR 1"		TURN ON PULSE READ
5	"=COMM RGYR #2"		
6	"=RGYR"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	RGYR RUN #2
7	"=COMM RGYR #3"		
8	"=RGYR/"	1. VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5 2. VERIFY NO PULSES READ	RGYR RUN #3
9	"=COMM RGYR SEQ"		
10	"=CTRL/M/S/D"		SEQ DEF VARY DATA REPEST
11	"=RGYR"	VERIFY RGYR SCHEDULED	
12	"=CTRL/S"	VERIFY RGYR EXECUTING	START SEQ
13	WAIT 5 MINUTES		RGYR SEQ
14	"=CTRL/M"		STOP SEQ
15	PERFORM TEST CLOSE OUT 0-5		1

TEST PROCEDURE ID 7-1, ..., 7-4

DESCRIPTION: RDRS

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST SETUP 0-4		
2	"=COMM RDRS #1"		
3	"=RDRS"	VERIFY COMMAND & RESPONSE MESSAGES ON DISPLAY 5	RDRS RUN #1
4	"=COMM RDRS #2"		
5	"=RDRS 20, 32*FAF5"	VERIFY COMMAND & RESPONSE MESSAGES ON DISPLAY 5	RDRS RUN #2
6	"=COMM RDRS SEQ"		
7	"=CTRL/S/M/D"		SEQ DEF VARY DATA REPEST
8	"=RDRS"	VERIFY RDRS SCHEDULED	
9	"=CTRL/S"	VERIFY RDRS EXECUTING	START SEQ
10	WAIT 3 MINUTES		RDRS SEQ
11	"=CTRL/M".		STOP SEQ
12	PERFORM TEST CLOSEOUT 0-5		
	•.		
	•	,	
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TEST PROCEDURE ID 8-X, 9-X

DESCRIPTION: ISON/ISOF

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST SETUP 0-4		
2	"=COMM ISON/ISOF #1"		
3	" = I SON"	VERIFY COMMAND & RESPONSE MESSAGES ON DISPLAY 5	ISON RUN #1
4	"=ISOF"	VERIFY COMMAND & RESPONSE MESSAGES ON DISPLAY 5	ISOF RUN #1
5	"=COMM ISON/ISOF #2"		
6	"=ISON 5555, AAAA, 15"	VERIFY COMMAND & RESPONSE MESSAGES ON DISPLAY 5	ISON RUN #2
7	"=ISOF 5555,AAAA"	VERIFY COMMAND & RESPONSE MESSAGES ON DISPLAY 5	ISOF RUN #2
8	"=COMM ISON/ISOF #3"		
9	"=CTRL/D"		VARY DATA
10	"= I S O N "	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	ISON RUN #3
11	"=ISOF"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	ISOF RUN #3
12	"=COMM ISON/ISOF SEQ"		

TEST PROCEDURE ID 8-X, 9-X (CONT.)

DESCRIPTION: ISON/ISOF

STEP	PROCESS	TEST CRITERIA	NOTES
13	"=CTRL/M/S"		SEQ DEF REPEAT
14	"= I S O N "	VERIFY ISON SCHEDULED	
15	"= I S O F "	VERIFY ISOF SCHEDULED	
16	"=CTRL/S"		START SEQ
17	WAIT FOR 3 MINUTES	VERIFY ISON & ISOF RUNNING	ISON/ISOF SEQ
18	"=CTRL/M"		STOP SEQ
19	PERFORM TEST CLOSE OUT 0-5		
	•		

TEST PROCEDURE ID 10-1, ..., 10-4

DESCRIPTION: ISOT

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST SETUP 0-4		
2	"=COMM ISOT #1"		
3	"=ISOT"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	ISOT RUN #1
4	"=COMM ISOT #2"		
5	"=CTRL/D"		VARY DATA
6	" = I SOT"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	ISOT RUN #2
7.	"=COMM ISOT SEQ		
8	"=CTRL/S/M"		SEQ DEF REPEAT
9	"=ISOT"	VERIFY ISOT SCHEDULED	
10	"=CTRL/S"	VERIFY ISOT EXECUTING	START SEQ
11	WAIT FOR 3 MINUTES		ISOT SEQ
12	"=CTRL/M"		STOP SEQ
13	PERFORM SYSTEM CLOSEOUT 0-5		
	•. •		

TEST PROCEDURE ID 11-1..., 11-4

DESCRIPTION: IDWP

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST SETUP 0-4		
2	"=COMM IDWP #1"		
3	"=IDWP"	1. VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5 2. VERIFY WUPPE DATA	IDWP RUN #1
4	"=COMM IDWP #2"		
5	"=CTRL/D"		VARY DATA
6	" = I DWP "	1. VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5 2. VERIFY WUPPE DATA	IDWP RUN #2
7	"=COMM IDWP SEQ"		
8	"=CTRL/S/M"		SEQ DEF RECEAT
9	"=IDWP"	VERIFY IDWP SCHEDULED	
10	"=CTRL/S"		START SEQ
11	WAIT FOR 3 MINUTES		IDWP SEQ
12	"=CTRL/M "		STOP SEQ
13	PERFORM TEST CLOSEOUT 0-5		
	•.		

TEST PROCEDURE ID 12-1, ..., 12-4

DESCRIPTION: IDUI

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST SETUP 0-4		Property designations of the second s
2	"=COMM IDUI #1"		
3	"=IDUI"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	IDUI RUN #1
4	"=COMM IDUI 2"		
5	"=CTRL/D"		VARY DATA
6	" = I D U I "	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	IDUI RUN #2
7	"=COMM IDUI SEQ"		
8	"=CTRL/M/S"		SEQ DEF REPEAT
9	"=IDUI"	VERIFY IDUI SCHEDULED	
10	"=CTRL/S"		START SEQ
11	WAIT FOR 3 MINUTES		IDUI SEQ
12	"=CTRL/M"		STOP SEQ
13	PERFORM TEST CLOSEOUT 0-5		
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<u>.</u>			
! 			

TEST PROCEDURE ID 13-1, ..., 13-4

DESCRIPTION: IDRS

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST STARTUP 0-4		Design the substitute of the consequence of the chance of public states of the consequence of the chance of the ch
2	"=COMM IDRS #1"		
3	"=IDRS"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	IDRS RUN #1
4	"=COMM IDRS #2"		
5	"=CTRL/D"		VARY DATA
6	"=IDRS"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	IDRS RUN #2
7	"=COMM IDRS SEQ"	·	
8	"=CTRL/M/S"		SEQ DEF REPEAT
9	"=IDRS"	VERIFY IDRS SCHEDULED	
10	"=CTRL/S"		START SEQ
11	WAIT FOR 3 MINUTES		IDRS SEQ
12	"=CTRL/M"		STOP SEQ
13	PERFORM TEST CLOSEOUT 0-5		
	•		

TEST PROCEDURE ID 14-1, 14-2, 14-3

DESCRIPTION: PGMT

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST SETUP 0-4		
2	"=COMM PGMT 1,0,0,0"		
3	"=PGMT"	1. VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5 2. VERIFY SEID FRONT PANEL GMT = 0,0,0	PGMT RUN #1
4	"=COMM PGMT 1,2,3,4"		
5	"=PGMT 1,2,3,4"	1. VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5 2. VERIFY SEID FRONT PANEL GMT = 2,3,4	PGMT RUN #2
6	PERFORM TEST CLOSE OUT 10-5		
	•		
	•.		

TEST PROCEDURE ID 15-1, 15-2, 15-3

DESCRIPTION: RGMT

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST SETUP 0-4		
2	"=COMM RGMT #1"		
3	"=PGMT 1,0,0,0"	1. VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5 2. VERIFY SEID GMT = 0,0,0,0	SET GMT
4	"=RGMT"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	RGMT RUN #1
5	"=COMM RGMT #2"		
6	"=R.GMT"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	RGMT RUN #2
7	"=COMM RGMT SEQ"		
8	"=CTRL/M/S		SEQ DEF REPEAT
9	"=RGMT"		
10	"=CTRL/S"	VERIFY RGMT BEING PERFORMED	START SEQ
11	WAIT 5 MINUTES		RGMT SEQ
12	"=CTRL/M"		STOP SEQ
13	PERFORM TEST CLOSE OUT 0-5		
13	PERFORM TEST CLOSE OUT 0-5		

TEST PROCEDURE ID 16-1, 16-2

DESCRIPTION: XPIT

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST SETUP 0-4		
2	"=COMM XPIT"		
3	"=XPIT"	1. VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5 2. VERIFY & RECORD DEP STATUS WORD	
4	PERFORM TEST CLOSE OUT 0-5		
	· •		
	·.		

TEST PROCEDURE ID 17-1. 17-2

DESCRIPTION: XPMT

STEP	PROCESS	TEST CRITERIA	NOTES
1 2	PERFORM TEST SETUP 0-4 "=COMM XPMT"		
3	"=XPMT"	1. VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5 2. VERIFY & DISPLAY DEP STATUS WORD	
4	PERFORM TEST CLOSE OUT 0-5		
	•.		

TEST PROCEDURE ID 18-1, 18-2, 18-3

DESCRIPTION: XHRM

STEP	PROCESS	TEST CRITERIA	NOTES
1	· PERFORM TEST SETUP 0-4		Marie Commission of the Commis
2	"=COMM XHRM"		
3	"≈XHRM O"	1. VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5 2. VERIFY HRM OUTPUT STOPPED	STOP HRM
4	"=XHRM 1"	1. VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5 2. VERIFY HRM OUTPUT STARTED	START HRM
5	"=XHRM 0"	1. VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5 2. VERIFY HRM OUTPUT STOPPED	STOP HRM
6	"=XHRM 1"	1. VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5 2. VERIFY HRM OUTPUT STARTED	START HRM
7	PERFORMED TEST CLOSEOUT 0-5		

TEST PROCEDURE I 19-1, 19-2

DESCRIPTION: SSPR

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TESTSETUP 0-4		
2	"=COMM SSPR"		
3	"=SSPR 1"	1. VERIFY COMMANDS & RESPONSE MESSAGES ON DISP 5 2. VERIFY SSPR = ON	ÖN
4	"=SSPR O"	1. VERIFY COMMANDS & RESPONSE MESSAGES ON DISP 5 2. VERIFY SSPR = OFF	OFF
5	"=SSPR 1"	1. VERIFY COMMANDS & RESPONSE MESSAGES ON DISP 5 2. VERIFY SSPR = ON	ON
6	PERFORM TEST CLOSEOUT 0-3		
			•
	•		

TEST	PROCEDURE	ID_	20-1
DESCR	RIPTION:	X	INT

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST SETUP 0-4		
2	"=COMM XINT"		
3	"=XINT"	VERIFY COMMAND & RESPONSE MESSAGES ON DISP 5	
4	PERFORM TEST CLOSEOUT		
	•		

TEST	PROCEDURE	ID	21-1	
DESC	RIPTION:	SEQ	#1	

STEP	PROCESS	TEST CRITERIA	NOTES
1	PERFORM TEST SETUP 0-4		***************************************
2	"=CTRL/D/M/W"		D - AUTO DATA M - MODE S - SEQ DEF W - WHOA
3	"=COMM SEQ #1		W = W1107
4	"=PGMT"		SET GMT
5	"=CTRL/S"		
6	"=XIIT"	VERIFY TESTS SCHEDULED	
	"=XIMT"		į
	"=RDRI"		
	"=RDIS"		·
	" = R A L G "		
	"=RGYR"		
	"=RDRS"		
	"= I S O N "		
	" = I S O F "		
	" = I S O T "		
	" = I D W P "		
	" = I D U'I,"		
	"= I DRS"		
			·

TEST PROCEDURE ID 21-1 (CONT.)

DESCRIPTION: SEQ #1

STEP	PROCESS	TEST CRITERIA	NOTES
	"=RGMT"		
	"=XPIT"		
	"=XPMT"		
7	"=CTRL/S"		START SEQ
8	WAIT 15 MINUTES		SEQ #1
9	"=CTRL/M"		STOP SEQ
10	PERFORM TEST CLOSEOUT 0-5		
	•		
	·		·
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IR-AL-019 PDSS/IMC QUALIFICATION TEST SOFTWARE ACCEPTANCE PLAN

MARCH 1, 1984

National Aeronautics and Space Administration Prepared For:

George C. Marshall Space Flight Center Huntsville, Alabama 35812

Prepared By:

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#### PREFACE

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#### QT SOFTWARE ACCEPTANCE PLAN

This Software Acceptance Plan for the PDSS/IMC Qualification Test software defines those tests that are to be performed.

The tests are identified in Table 1. Detailed procedures will be developed for each test. The form for the test procedures is shown in Figure 1.

Figure 2 contains a Verification Matrix for the IMCE interfaces while Figure 3 is a verification matrix for PDSS/IMC Qualification Test software.

The performance of these tests will verify the IMCE interfaces and thereby will verify the QT software.

TABLE 1: QT ACCEPTANCE TEST

TEST ID	<u>TEST</u> .
1-1	XIIT - Nominal
1-2	- IMCE Induced Error
2-1	XIMT - Nominal
2-2	- IMCE Induced Error
3 - 1	RDRI - Test Pattern 1
3-2	- Test Pattern 2
3 - 3	- IMCE Induced Error
4 – 1	RDIS - Test Pattern 1
4 - 2	- Test Pattern 2
4 - 3	- Test Pattern 3
4-4	- IMCE Induced Error
5-1	RALG - Test Pattern 1
5-2	- Test Pattern 2
5-3	- Test Pattern 3
5 - 4	- IMCE Induced Error
6 – 1	RGYR - Test Pattern 1
6 - 2	- No Output
6-3	- Test Pattern 2
6 - 4	- No Output
6 - 5	- Test Pattern 3
6-6	- No Output
6 - 7	- IMCE Induced Error
7 – 1	RDRS - Test Pattern #1
7-2	- Test Pattern #2
7 - 3	- Test Pattern #3
7 – 4	- IMCE Induced Error
8-1	. ISON - Test Pattern #1
	•

## TABLE 1: QT ACCEPTANCE TEST (CONTINUED)

9-1		ISOF	***	Test	Pattern	#1
8-2		ISON	-	Test	Pattern	#2
9-2		ISOF	-	Test	Pattern	#2
8-3		ISON	••	Test	Pattern	#3
9-3		ISOF	•••	Test	Pattern	#3
8 - 4		ISON		Test	Pattern	#4
9 - 4		ISOF	-	Test	Pattern	#4
8-5		ISON		IMCE	Induced	Error
9-5		ISOF		IMCE	Induced	Error
10-1		ISOT	p=	Test	Pattern	#1
10-2			-	Test	Pattern	#2
10=3			=	Test	Pattern	#3
10-4			•••	IMCE	Induced	Error
11-1		IDWP	-	Test	Pattern	#1
11-2			-	Test	Pattern	#2
11-3			-	Test	Pattern	#3
11-4			449	IMCE	Induced	Error
12-1		IDUI	-	Test	Pattern	#1
12-2			-	Test	Pattern	#2
12-3			tim	Test	Pattern	#3
12-4	,		-	IMCE	Induced	Error
13-1		IDRS	EVA	Test	Pattern	# 1.
13-2			-	Test	Pattern	#2
13-3			-	Test	Pattern	#3
13-4			-	IMCE	Induced	Error
14-1		PGMT	<b></b>	Test	Pattern	#1
15-1	·	RGMT	-			
	•					

## TABLE 1: QT ACCEPTANCE TEST (CONTINUED)

14-2	PGMT	-	Test Pattern #2
15-2	RGMT		
14-3	PGMT	-	Test Pattern #3
15-3	RGMT		
14-4	PGMT	-	IMCE Induced Error
15-4	RGMT	-	IMCE Induced Error
16-1	XPIT	-	Nominal
16-2	XPIT	<u>-</u>	IMCE Induced Error
17-1	XPMT	<del>-</del> -	Nominal
17-2		-	IMCE Induced Error
18-1	XHRM	-	ON
18-2	XHRM	*	OFF
18-3	XHRM	•••	ON
19-1	SSPR	-	ON
19-2	SSPR	-	OFF
20-1	XINT	•••	Nominal
21-1	Sequence	-	Set #1

TEST	PROCEDURE	I D
DESCR	RIPTION:	

P	A	G	E	
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STEP	PROCESS	TEST, CRITERIA	NOTES
	•		

FIGURE 1: TEST PROCEDURE FORM

### ORIGINAL PAGE IS OF POOR QUALITY

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	TEST		F	₽	S	G	8	SS	2	L.	<u></u>	<u>م</u>		S			-		E	<b> </b>	~	
INTE	RFACE	XIII	XIMI	RDRI	RDIS	RALG	RGYR	RDRS	ISON	ISOF	1501	IDWP	冒	IDRS	PGMT	RGMT	XPIT	XPMT	XHRM	XTPT	SSPR	XINT
ASTR	OS SERIAL	ļ						X						X						X		
	DO'S	ļ							X	X	<u>,x</u>									X		
	AI'S					X														X		
DRIR	U PULSES						Χ													χ	X	
	DO'S								X	χ	Х									Χ		
ļ	DI'S				X															Χ		
1	AI'3					Х														X		
WUPP												X								Х		
	D0'S								Х	Х	χ	X								Х		
1	AI'S					Х														Х		
UIT	SERIAL												Х							λ'		
	D0'S								χ	Χ	Х		Х							Х		
	AI'S					χ		1								<del></del>				Х		
RAUI	SERIAL	Х	Х	Х	Х	Х	Х	Х	χ	Х	Х	Х	Х	χ	Х	X	Х	Х	Х	Х	Х	X
TMI	UTC														χ	χ				Х		
HRM	PCM																		Х	Х		
POWE	R AO'S					Х			X	Х	χ									Х		
o	AI'S					Х														X		
	DI'S				Х						-									Х		_
IMCE	DEP	Χ	Х																	X		x
IMCE	PCC																х	х		X		
						l				1	1	1		1.		<u>.</u>	<u>^</u>	2 1	<u>^                                    </u>	^	1	;

FIGURE 2: IMCE INTERFACE VERIFICATION MATRIX

REQUIR	EMENT	VERIFICATION TEST
2.3.1		A11
2.3.2		All
2.3.3		All
2.3.4		All
2.3.5		All
2.3.6		A11
2.3.7		N/I
2.3.8		All
2.3.9		As Needed
2,3.10		All
2.3.11		All
2.3.12		N/I
2.3.13		N/I
2.3.14		All
2.3.15		All
2.3.16		N/I
2.4		N/I
3.0		A11 .
4.0		A11
4.1		All
4.2		A1 1
4.3		A11
4.4		A11
4.4.1	•	1-*
4.4.2		2-*
4.4.3		3-*
4.4.4		4-*
4.4.5		5 <b>-</b> *
4.4.6		6-*
4.4.7	•	7 - *
	FIGURE 3	: PDSS/IMC QT SOFTWARE VERIFICATION MATRIX

REQUIREMENT	VERIFICATION TEST
4.4.8	8-*
4.4.9	9-*
4.4.10	10-*
4.4.11	11-*
4.4.12	12-*
4.4.13	13-*
4.4.14	14-*
4.4.15	15-*
4.4.16	16~*
4.4.17	17-*
4.4.18	18-*
4.4.19	N/I
4.4.20	19-*
4.4.21	20-*
4.5	All

FIGURE 3: PDS3/IMC QT SOFTWARE VERIFICATION MATRIX (CONTINUED)